



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) INDIVIDUAL PERMIT TO DISCHARGE STORMWATER FROM LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

NPDES PERMIT NO: PA0054712

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

City of Philadelphia
The Aramark Tower 4th Floor
1101 Market Street
Philadelphia, PA 19107-2994

is authorized to discharge from a large municipal separate storm sewer system (MS4) located in **City of Philadelphia, Philadelphia County**, to **Schuylkill River, Delaware River, Cobbs Creek, Wissahickon Creek, Tacony-Frankford Creek, Pennypack Creek, Poquessing Creek and their Tributaries** in Watershed(s) **3-G, 3-F, 3-J, and 2-F** in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

THIS PERMIT SHALL BECOME EFFECTIVE ON _____

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON _____

The authority granted by coverage under this Permit is subject to the following further qualifications:

1. The permittee shall comply with the effluent limitations and reporting requirements contained in this permit.
2. The application and its supporting documents are incorporated into this permit. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
3. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))
4. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to the Department of Environmental Protection (DEP) at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d)(2)). In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code 92a.7 (b), (c))
5. The permittee shall implement Pollutant Control Measures as specified in **Appendices B (water impaired by pathogens) and C (waters impaired by priority organic compounds)**.
6. The permittee shall achieve pollutant loading reductions for **siltation** as specified in **Appendix E**.
7. The permittee shall develop and continue to implement a Total Maximum Daily Load (TMDL) Plan for achieving pollutant reductions as required by the **Delaware River Estuary PCB TMDL, Schuylkill River PCB TMDL, and Wissahickon TMDL** by Permit Expiration Date.

DATE PERMIT ISSUED _____

ISSUED BY _____

Jenifer L. Fields, P.E.
Clean Water Program Manager
Southeast Regional Office

PART A

EFFLUENT LIMITATIONS, REPORTING AND RECORDKEEPING REQUIREMENTS

I. EFFLUENT LIMITATIONS

- A. This permit establishes effluent limitations in the form of implementation of a Stormwater Management Program (SWMP), as specified in Part C of this permit, to reduce the discharge of pollutants from the regulated MS4 to the maximum extent practicable (MEP), to protect water quality and quantity, and to satisfy the appropriate water quality requirements of the Federal Clean Water Act, the Pennsylvania Clean Streams Law, and regulations promulgated thereto. The Federal Clean Water Act (CWA) provides that National Pollutant Discharge Elimination System (NPDES) permit for MS4s must require municipalities to reduce pollutants in their storm water discharges to the MEP.
- B. All discharges from regulated MS4s must comply with all applicable requirements established in accordance with 25 Pa. Code Chapters 91-96, 102, and 105 of DEP's rules and regulations. DEP may, upon written notice, require additional BMPs or other control measures to ensure that the water quality standards of the surface waters receiving stormwater discharges are attained.

II. DEFINITIONS

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce pollutant loading to surface waters of this Commonwealth. The term includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

Better Site Design (BSD) An approach to residential and commercial development that, when properly conducted, can simultaneously reduce pollutant loads, conserve natural areas, save money, and increase property values. BSD promotes three main goals for new development sites: (1) to reduce the amount of impervious cover, (2) to increase the amount of natural lands set aside for conservation, and (3) to better integrate stormwater treatment systems on-site. Green Infrastructure techniques like green roofs, rain gardens, and vegetated swales can be used in BSD to manage stormwater runoff and increase the amount of local green space. Also, reducing the overall scale of streets, driveways, setbacks, parking spaces, and lot sizes are effective methods of reducing impervious cover. <http://cfpub.epa.gov/npdes/greeninfrastructure/information.cfm#glossary>

Clean Water Act (CWA) means the Federal Water Pollution Control Act, as amended, 33 U.S.C.A. §§ 1251 - 1387.

Cleaning Agent means any product, substance or chemical other than water that is used to clean the exterior surface of vehicles.

Control Measure as used in this permit refers to any BMP in the MS4 Stormwater Management Program, the MS4 TMDL Plan or any other method used to prevent or reduce the discharge of pollutants to waters of the Commonwealth.

Cross Connection is a connection in which a Dye Test has demonstrated that flow in the sanitary lateral discharges to the MS4.

Designated Uses are those uses specified in 25 Pa. Code §§ 93.4(a) and 93.9a – 93.9z for each water body or segment whether or not they are being attained. (25 Pa. Code § 93.1)

Dry Weather means a condition in which there are no precipitation, snowmelt, drainage or other events producing a stormwater discharge for more than 48 consecutive hours.

Dry Weather Flow is defined as a flow that is detected after an elapse of 72 hours of a continuous dry spell from the previous rainfall event.

Dye Test means a test whereby dye is poured down a drain and is tracked by use of cameras or visual inspection. The permittee shall employ either Dye Tests from FAI's Camera-Aided Method or Dye Tests from FAI's Manual Method.

Existing Uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards. (25 Pa. Code § 93.1)

Grab Sample means an individual sample of a sufficient quantity collected at a selected time over a period not to exceed 15 minutes.

Illicit Connection means any physical connection to a municipal separate storm sewer system that can convey illicit discharges into the system and/or is not authorized or permitted by the permittee.

Illicit Discharge means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except non-stormwater discharges as described in the "Discharges Authorized by this Permit" section of this Permit. Examples of illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, animal wastes, or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-stormwater waste into a municipal separate storm sewer system. Illicit discharges can be accidental or intentional.

Impaired Waters means surface waters that fail to attain one or more of its designated uses under 25 Pa. Code Chapter 93 and as listed in Categories 4 and 5 of Pennsylvania's Integrated Water Quality Monitoring and Assessment Report.

Integrated Water Quality Monitoring and Assessment Report means the report published every other year by DEP to report on the conditions of Pennsylvania's surface waters to satisfy sections 305(b) and 303(d) of the CWA.

Intermittent Stream means a body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges. (25 Pa. Code § 92a.2)

Landfill means an area or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land Application Unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium Municipal Separate Storm Sewer System means all municipal separate storm sewer that are either:

- a. Located in an incorporated place with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census.
- b. Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties.
- c. Owned and operated by a municipality other than those described in paragraph (a) or (b) and that are designated by the Department as part of the large or medium municipal separate storm sewer system.

Load Allocation means the portion of a surface water's loading capacity that is assigned or allocated to existing and future nonpoint sources and natural quality. (25 Pa. Code § 96.1)

Low Impact Development (LID) means site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater. LID can be applied to new development, urban retrofits, and revitalization projects. LID utilizes design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale

conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site.

Maximum Extent Practicable (MEP) means a technology-based discharge standard established in the CWA at §402(p)(3)(B)(iii) that requires NPDES MS4 permittees to optimize reductions in stormwater pollutants on a location-by-location basis by minimizing pollutant loads in stormwater discharges and maximizing technically achievable and cost-effective water quality improvements. MEP as used in this program also includes the requirement under the Pennsylvania Clean Streams Law to prevent pollution from changes in stormwater rate, volume, and temperature associated with alteration of the land. The MEP standard requires the development, implementation, and enforcement of measures including BMPs, control techniques, system design, engineering methods, and other provisions that DEP determines to be appropriate for the control of such pollutants. MEP is an iterative, dynamic, flexible standard that the permittee shall evaluate and update continuously, as necessary, to better tailor or expand the program based on its effectiveness in reducing pollutant discharge load.

MS4 Requirements Table is a compilation of information regarding Pennsylvania MS4s, surface waters that receive stormwater discharges from MS4s, surface water impairments and TMDLs that is posted to DEP's website, www.dep.pa.gov/MS4. The MS4 Requirements Table has been assembled by DEP to assist MS4 permittees in determining applicable requirements for the development of plans and implementation of BMPs.

Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(8))

Municipal Separate Storm Sewer System (MS4) means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems pursuant to 40 CFR §§ 122.26(b)(4), (b)(7), and (b)(16), respectively, or designated under 40 CFR § 122.26(a)(1)(v). (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(18))

Municipality means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes or other wastes. (25 Pa. Code § 92a.2)

National Pollutant Discharge Elimination System (NPDES) means a permit issued under 25 Pa. Code Chapter 92a (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance) for the discharge or potential discharge of pollutants from a point source to surface waters.

Non-Structural BMPs means actions that involve management and source controls such as: (1) policies and ordinances that provide requirements and standards to direct growth to identified areas, promote redevelopment, protect areas such as wetlands and riparian areas, maintain and/or increase open space, provide buffers along water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; (2) education programs for developers and the public about minimizing water quality impacts; (3) measures such as minimizing the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, street sweeping, and source control measures such as good housekeeping, maintenance, and spill prevention; and other BMPs as referenced in Chapter 5 of the Pennsylvania Stormwater BMP Manual (363-0300-002).

Observation point means a location upstream of an outfall where a permittee must conduct dry weather screening in accordance with Part C II.A.5.ii. of this permit if the permittee determines that screening at an outfall is infeasible, and the point at which stormwater discharges to storm sewers owned or operated by an adjoining municipality where dry weather screening must be conducted.

Ordinance means a law enacted by the government of a municipality.

Outfall means a point source as defined by 40 CFR § 122.2 at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(9))

Owner or Operator means the owner or operator of any "facility" or "activity" subject to regulation under the NPDES program. (25 Pa. Code § 92a.3(b)(1) and 40 CFR § 122.2)

Permittee means the owner or operator of a regulated small MS4 authorized to discharge under the terms of this permit.

Person is defined by 25 Pa Code 92a.2, Any individual, public or private corporation, partnership, association, municipality or political subdivision of this Commonwealth, institution, authority, firm, trust, estate, receiver, guardian, personal representative, successor, joint venture, joint stock company, fiduciary; department, agency or instrumentality of State, Federal or local government, or an agent or employee thereof; or any other legal entity.

Point Source means a discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, Concentrated Aquatic Animal Production Facility (CAAP), Concentrated Animal Feeding Operation (CAFO), landfill leachate collection system, or vessel or other floating craft from which pollutants are or may be discharged. (25 Pa. Code § 92a.2)

Pollutant means any contaminant or other alteration of the physical, chemical, biological, or radiological integrity of surface water which causes or has the potential to cause pollution as defined in section 1 of the Pennsylvania Clean Streams Law, 35 P.S. § 691.1. (25 Pa. Code § 92a.2)

Pollution shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The department shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined (The Clean Streams Law, 35 P.S. § 691.1).

Proper Connection means a connection in which the sanitary sewer lateral is connected to the sanitary sewer only and the storm water lateral is connected to the storm sewer only.

Qualifying Development or Redevelopment Project means an earth disturbance activity that requires an NPDES permit for stormwater discharges associated with construction activity per 25 Pa. Code Chapter 102.

Riparian Forest Buffer means an area of permanent vegetation consisting of native trees, shrubs, forbs and grasses along surface water that is maintained in a natural state or sustainably managed to protect and enhance water quality, stabilize stream channels and banks, and buffer land use activities from surface waters.

Storm Sewershed means the land area that drains to an individual MS4 outfall from within the jurisdiction of the MS4 permittee. The term "combined storm sewershed" means the drainage areas of all MS4 outfalls that discharge to a specific surface water or to waters within the Chesapeake Bay watershed.

Stormwater means runoff from precipitation, snow melt runoff and surface runoff and drainage. "Stormwater" has the same meaning as "storm water." (25 Pa. Code § 92a.2)

Stormwater Management Program (SWMP) means a comprehensive program prepared by the applicant and approved by DEP to manage the quality of stormwater discharged from the municipal separate storm sewer system. Permittees are required to develop, implement and enforce a SWMP designed to reduce the discharge of pollutants from the regulated large MS4 to the MEP, to protect water quality and quantity, and to satisfy the appropriate water quality requirements of the Pennsylvania Clean Streams Law and the CWA and regulations

promulgated thereto.

Structural BMPs means stormwater storage and management practices including, but not limited to, wet ponds and extended detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; infiltration practices such as infiltration basins and infiltration trenches; and other BMPs as referenced in Chapter 6 of the Pennsylvania Stormwater BMP Manual (363-0300-002).

Surface Waters means perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds and constructed wetlands used as part of a wastewater treatment process. (25 Pa. Code § 92a.2)

Total Maximum Daily Load (TMDL) means the sum of individual waste load allocations for point sources, load allocations for nonpoint sources and natural quality and a margin of safety expressed in terms of mass per time, toxicity or other appropriate measures. (25 Pa. Code § 96.1)

Wasteload Allocation (WLA) means the portion of a surface water's loading capacity that is allocated to existing and future point source discharges. (25 Pa. Code § 96.1)

Water Quality Criteria means numeric concentrations, levels or surface water conditions that need to be maintained or attained to protect existing and designated uses. (25 Pa. Code § 93.1)

Water Quality Standards means the combination of water uses to be protected and the water quality criteria necessary to protect those uses. (25 Pa. Code § 92a.2)

Waters of the Commonwealth means any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

III. MONITORING, REPORTING AND RECORDKEEPING

- A. Where samples are collected and analyzed or measurements are taken under this permit, the permittee shall assure:
1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(1))
 2. Records of monitoring information shall include (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(3)):
 - a. The date, exact place, and time of sampling or measurements.
 - b. The individual(s) who performed the sampling or measurements.
 - c. The date(s) analyses were performed.
 - d. The individual(s) who performed the analyses.
 - e. The analytical techniques or methods used.
 - f. The results of such analysis.
 3. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR Subchapters N or O. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(4))
- B. Records Retention – All records of monitoring activities and results, copies of all plans and reports required by this Permit, and records of all data used to complete the application for this Permit shall be retained by the permittee for at least 5 years from the date of the sample measurement, report or application. Such records must be submitted to DEP upon request or as required for annual reports. The permittee must make records available to the public at reasonable times during regular business hours. (25 Pa. Code § 92a.3(c), 40 CFR §§ 122.34(g)(2) and 122.41(j)(2))

- C. Proper Operation and Maintenance (O&M) – The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), including stormwater BMPs, that are installed or used by the permittee to achieve compliance with the conditions of this permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(e))

D. Reporting and Fee Requirements

1. The permittee shall submit a complete Annual MS4 Status Report using DEP's annual report template (3800-FM-BPNPSM0491) to the DEP regional office that issued Permit coverage approval by September 30 of each year.
 - a. The first annual report submitted to DEP under this permit shall have a reporting period starting from the end of the latest annual or progress report period (under the previous permit) to June 30, 2018. The first annual report is due by September 30, 2018.
 - b. Following the first annual report, the reporting period shall thereafter be July 1 - June 30, and the report shall be due by September 30.
2. The permittee shall pay an annual fee of \$500 in accordance with 25 Pa. Code § 92a.62. Annual fees are due on each anniversary of the effective date of the most recent new or reissued permit. Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Clean Water
Re: Chapter 92a Annual Fee
PO Box 8466
Harrisburg, PA 17105-8466

3. The permittee shall submit the Annual MS4 Status Report and annual fee to DEP electronically upon receipt of written notification from DEP.
4. Unanticipated Non-Compliance or Potential Pollution Reporting
 - a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b) listed below:
 - (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.
 - (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
 - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.
 - b. The permittee shall report any non-compliance which may endanger health or the environment in accordance with the requirements of 40 CFR § 122.41(l)(6). These requirements include the following obligations:

- (i) 24 Hour Reporting - The permittee shall orally report any non-compliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances.
- (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any non-compliance which may endanger health or the environment. The written submission shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.
- (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(6)(iii))

5. Other Non-Compliance

The permittee shall report all instances of non-compliance not reported under paragraph D.4 of this section or specific requirements of compliance schedules, at the time Annual Reports are submitted, on the Non-Compliance Reporting Form (3800-FM-BPNPSM0440). The reports shall contain the information listed in paragraph D.4.b.(ii) of this section. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(7))

6. Signatory Requirements

- a. Completed Annual Reports and all other reports, applications, and information submitted to DEP shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:
 - For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
 - For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 - For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.
- b. If signed by a person other than the above, the person must be a duly authorized representative of the permittee. A person is a duly authorized representative only if:
 - The authorization is made in writing by a person described in paragraph a., above, and submitted to DEP.
 - The authorization specifies either an individual or a position having responsibility for the operation of the regulated system, facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
- c. Changes in Signatory Authorization - If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the system or facility, a new authorization satisfying the requirements of paragraphs 6.a and 6.b, above, must be submitted to DEP prior to or together with any reports, information or NOI to be signed by an authorized representative.

PART B
STANDARD CONDITIONS

I. MANAGEMENT REQUIREMENTS

A. Compliance

The permittee must comply with all conditions of this Permit. Any permit non-compliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(a))

B. Permit Modification, Termination, or Revocation and Reissuance

1. Permit coverage may be modified, terminated, or revoked and reissued during its term in accordance with Title 25 Pa. Code §§ 92a.72 and 92a.74 and 40 CFR § 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance, does not stay any Permit condition. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(f))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating coverage under this Permit, or to determine compliance with this Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in an NOI, or submitted incorrect information in an NOI or in any report to DEP, it shall promptly submit the correct and complete facts or information. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(8))
4. The permittee shall give advance notice to the DEP office that approved permit coverage of any planned physical alterations or additions to the regulated small MS4. Notice is only required when: 1) the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR § 122.29(b), or 2) the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l))

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(d))

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

1. Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the CWA or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR § 122.41(a)(2).

2. Any person or municipality, who violates any provision of this Permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or
- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or non-compliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A. § 4904 and 40 CFR §§ 122.41(j)(5) and (k)(2).

C. Liability

1. Nothing in this Permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the CWA or Sections 602, 603 or 605 of the Clean Streams Law.
2. Nothing in this Permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the CWA and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(c))

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Section 5(b) of Pennsylvania's Clean Streams Law (35 P.S. § 691.5(b)), 25 Pa. Code Chapter 92a and 40 CFR § 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(2))
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Permit; and (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph B.2 of this section, permit coverage may be transferred by the permittee to a new owner or operator only if this Permit coverage has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(a))
 2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(1))
 - b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(2))
 - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue coverage under this Permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section; and (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(3))
 - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any non-compliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate DEP regulations. (25 Pa. Code § 92a.71)
 3. In the event DEP does not approve transfer of coverage under this Permit, the new owner or controller must submit a new NOI.
- C. Property Rights – The approval of coverage under this Permit does not convey any property rights of any sort, or any exclusive privilege. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(g))
- D. Duty to Reapply – If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))
- E. Severability – The provisions of this permit are severable. If any provision of this permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected.

PART C
SPECIAL CONDITIONS

I. LEGAL AUTHORITY

The permittee shall implement the following activities through its legal authority:

- A. Operate and maintain its legal authority established by statute, ordinance, order, or other similar means to control stormwater discharges from its system, in accordance with NPDES regulations, 40 CFR Part 122.26(d)(2)(i).
- B. Control through ordinance, order, or other similar means, the contribution of pollutants and the quality and quantity of storm water discharged into its storm water system.
- C. Require, mandate, and enforce compliance with conditions in ordinances, contracts, and orders.
- D. Prohibit through ordinance, order or similar means, illicit discharges to its system;
- E. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition of illicit discharges to the permittee's MS4.
- F. In the event that any provision of its legal authority is found to be invalid, the permittee shall make the necessary changes to maintain adequate legal authority.

II. STORM WATER MANAGEMENT PROGRAM

- A. The permittee shall continue to implement and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act and Pennsylvania Clean Streams Law. The following elements are to be included in the plan. The permittee shall demonstrate compliance with the SWMP through the submission of Annual MS4 Status Reports due by September 30th each year.

1. SOURCE IDENTIFICATION

Within 12 months of permit issuance, the permittee shall submit to the DEP updated source information in GIS data layers, including the identification and mapping of storm sewer system outfalls including areas drained, land use activities, percent impervious, population estimates, hydrologic factors used to estimate flow or pollutant loading, publicly owned lands, bioassessment areas, location of retention/detention basins, infiltration devices, etc., all city-owned BMPs. Additionally, the permittee shall include industries, organized by watershed and Significant Industrial User [per 40 C.F.R. Section 403.3(t)], with facility name, address, NPDES permit number (if applicable), and description (which best reflects the principal products or services provided by each facility), that may discharge to the permittee's MS4. The permittee shall include any new sources, changes, municipal waste sites and landfills in each subsequent annual report.

2. DISCHARGE MANAGEMENT, CHARACTERIZATION, AND WATERSHED-BASED ASSESSMENT AND MANAGEMENT PROGRAM

a. Watershed-based Assessment

The permittee shall continue carrying out watershed-based assessment and planning in all of its watersheds, including the Poquessing, Pennypack, Tookany/Tacony/Frankford, Wissahickon, Schuylkill, and Delaware. The permittee integrated this effort with their work to complete stormwater management planning according to the requirements of Act 167, and in coordination with the neighboring counties. The permittee shall continue to conduct alternative analyses such that feasible strategies, plans, and designs can be developed to implement restoration strategies that mitigate the impacts of discharges from municipal separate storm sewer system in each watershed.

b. Inventory of point and non-point sources

The permittee shall continue to generate and update as necessary a list of point and non-point source discharges, whether municipal, construction, and/or industrial discharges. The DEP's eFACTS database and records management public file reviews can be used as a source for discharges. The list shall be included in each annual report.

c. Monitoring and Sampling

The permittee shall continue to collect monitoring data to characterize the extent of physical, chemical, and biological impairments in the watersheds. The permittee shall maintain and update periodically a monitoring plan that includes provisions and protocols for implementing in-stream monitoring. The monitoring may include, but is not limited to, the following:

- Discrete chemical monitoring via grab samples
- Continuous probe-based monitoring
- Wet weather monitoring using automated sampling or grab sampling
- Physical assessment of stream habitat
- Sewer assessment techniques

Each annual report shall include and outline the monitoring results for the preceding year. Additionally, the report will list the anticipated monitoring plan for the following year. The permittee shall work with other municipalities and counties that share each watershed to integrate monitoring information into a comprehensive assessment of the basin.

The permittee shall provide to the DEP a copy of the permittee's Monitoring Plan in the Annual MS4 Status Report after the issuance of this permit and shall continue to provide any updates to the Monitoring Plan in the subsequent Annual MS4 Status Reports.

d. Quality Assurance/Quality Control (QA/QC) and data evaluation

The permittee shall maintain and follow its standard QA/QC procedures for sampling, field testing, and laboratory analyses to meet data quality objectives.

e. Technology Evaluation

The permittee shall evaluate stormwater technologies to achieve its watershed management goals. Such stormwater technologies shall continue to be evaluated for the permittee's land-water-infrastructure approach to achieve its watershed management goals. The permittee shall submit in the annual MS4 status report an evaluation of land-based used technologies and their effectiveness in mitigating stormwater to improve water quality in runoff and decrease the quantity and rate of runoff to receiving water bodies through the MS4.

f. Watershed Partnerships

The permittee shall work with other municipalities, counties, and other watershed stakeholders through watershed partnerships to continue the watershed planning and implementation process to assess the benefits of management alternatives and develop an implementation plan that is responsive to the following water quality targets:

- Target A: Dry Weather Water Quality and Aesthetics
- Target B: Healthy Living Resources
- Target C: Wet Weather Water Quality and Quantity

3. PUBLIC EDUCATION AND OUTREACH

The permittee shall continue to implement a public education program that targets a diverse audience including residents, businesses (including commercial, industrial, and retailers), developers, elected officials, policy makers, planning staff, schools and other employees of the permittee. The purpose of the public education program is to distribute educational materials to the community and conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce or eliminate behaviors and practices that cause or contribute pollutants in stormwater runoff. Education initiatives may be developed locally or regionally. The city shall assess current education and outreach efforts and identify areas where additional outreach and education are needed. Audiences and subject areas to be considered include, but not limited to:

a. General Public

- i. General impacts of stormwater flows into surface waters.
- ii. Impacts from impervious surfaces.
- iii. Source control practices and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping, and rain water reuse.
- iv. A household hazardous waste educational and outreach program to control illicit discharge to the MS4 as required herein.
- v. Information and education on proper management and disposal of used oil, other automotive fluids, and household chemicals.
- vi. Businesses, including home-based and mobile businesses.
- vii. Management practices for used and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps, and other hazardous materials.
- viii. Impacts of illicit discharges and how to report them including information for industries about stormwater permitting and pollution prevention plans and the requirement that they develop structural and non-structural control systems.
- ix. Impact of trash to the City's rivers, streams, and waterways. (Litter Prevention)
- x. Using techniques that keep water onsite and/or reduce imperviousness: rain barrels, rain gardens, porous pavers, permeable concrete, porous asphalt, etc.

b. Homeowners, landscapers, and property managers

- i. Use of low or no phosphorus fertilizers, alternatives to fertilizers, alternative landscaping requiring no fertilizers.
- ii. Landscape designs to reduce runoff and pollutant loadings.
- iii. Car washing alternatives with the objective of eliminating phosphorus detergent discharges.
- iv. Yard care techniques that protect water quality.
- v. Management practice for use and storage of pesticides and fertilizers.
- vi. Management practices for carpet cleaning and auto repair and maintenance.
- vii. Runoff reduction techniques, including site design, on-site retention, pervious paving, retention of forests and mature trees.
- viii. Stormwater pond maintenance.
- ix. Impact of trash to the City's rivers, streams, and waterways. (Litter Prevention)
- x. Using techniques that keep water onsite and/or reduce imperviousness: rain barrels, rain gardens, porous pavers, permeable concrete, porous asphalt, etc.

c. Engineers, contractors, developers, review staff, and land use planners

- i. Technical standards for construction site sediment and erosion control.
- ii. Runoff reduction techniques, including site design, on-site reduction, pervious paving, retention of forests, and mature trees.
- iii. Importance of native vegetation for preventing soil erosion.
- iv. Stormwater treatment and flow controls.
- v. Impacts of increased stormwater flows into receiving water bodies.

The permittee shall publish/distribute and/or make available annually stormwater educational materials and/or information to the target audiences using a variety of distribution methods. Possible distribution

methods include, but not limited to: displays, posters, signs, pamphlets, newsletter, flyers containing information consistent with this requirement, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements (e.g. at bus and train, stops/stations), bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling. The list of publications and content of the publications must be reviewed and updated at least once per year. Publications should include a list of references (or links) to refer the reader to additional information (e.g., DEP and EPA stormwater websites, and any other sources that will be helpful to readers).

4. PUBLIC INVOLVEMENT / PARTICIPATION

a. Public Involvement / Participation

The permittee shall comply with applicable state and local public notice requirements when implementing a public involvement/participation program. The permittee shall continue to implement and maintain a written public involvement and participation program which describes various types of possible participation activities and describes methods of encouraging the public's involvement and soliciting the public's input. The permittee shall develop and submit to DEP a written Public Involvement and Participation Program one year following issuance of this permit. If a program is already in place, the City shall submit a copy of the Public Involvement and Participation Program to the DEP with its first Annual MS4 Status Report after the issuance of this permit. The permittee shall reevaluate and make revisions at least once per year.

The Public Involvement and Participation Program shall include, at a minimum:

- i. Opportunities for the public to participate in the decision-making process associated with the development, implementation, and update of programs and activities related to this permit.
- ii. Methods of routine communication with groups such as civic organizations, watershed associations, environmental advisory committees, stewardship programs, and other environmental organizations that operate within proximity to the permittee's regulated MS4s or surface waters receiving the permittee's discharge.
- iii. Making Annual MS4 Status Reports and all other plans, programs, maps, and reports required by this permit available to the public on the permittee's website, at the permittee's office(s), or by mail upon request.

The permittee shall develop at least three (3) public involvement and participation activities per year. Such activities may be done in cooperation and coordination between the Water Department and other agencies and organizations within the permittee with similar responsibilities and objectives. Progress report shall be included in the Annual Report with an explanation provided as to how this effort will reduce pollution loadings to meet the requirements of this permit.

b. Measurement of Impact and Recordkeeping

The permittee shall continue to obtain public feedback to gauge the effectiveness of its programs on its targeted audiences. This input shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors. The permittee shall track and maintain records of public education and participation activities. The permittee shall evaluate annually the effectiveness of the public education and participation programs, make revisions as necessary, and provide these results annually.

Regularly solicit public involvement and participation from the target audience groups using available distribution and outreach methods. This shall include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement the SWMP.

- i. The permittee shall solicit public involvement and participation from target audience groups on the implementation of the SWMP. The solicitation can take the form of public meetings or other events. The public shall be given notice in advance of each meeting or event. During

the meetings or events, the permittee should present a summary of progress, activities, and accomplishments with implementation of the SWMP, and the permittee should provide opportunities for the public to provide feedback and input. The presentation can be made at specific MS4 events or during any other public meeting. The permittee shall conduct at least one public meeting that includes information on SWMP implementation by March 15, 2023.

- ii. The permittee shall document and report instances of cooperation and participation in MS4 activities; presentations the permittee made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in the community.
- iii. The permittee shall also document and report activities in which members of the public assisted or participated in the meetings and in the implementation of the SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.

c. Advertise to the Public and Solicit Public Input

The permittee shall advertise to the public and solicit public input on the following documents prior to adoption or submission to DEP:

- Stormwater Management Ordinances;
 - Standard Operating Procedures (SOPs) (for non-municipal entities); and
 - Pollutant Reduction Plans (PRPs) and TMDL Plans, including modifications thereto.
- (1) For Ordinances and SOPs, the permittee shall provide to the public; provide opportunities for public comment; document and evaluate the public comments; and document the permittee's responses to the comments prior to finalizing the documents. The permittee shall provide this documentation to DEP upon request.
 - (2) For PRP's and TMDL Plans, public participation requirements are specified in this permit Appendix E and F of this permit.

d. Litter Awareness

- i. Continue to implement a public education and outreach program, with specific performance goals, and corresponding deadlines to reduce littering. The program shall include:
 - (1) Educating the public on the importance of reducing, reusing, and recycling;
 - (2) Disseminating information by using signs, articles, and other media outlets;
 - (3) Promoting educational programs in school, business, community associations, etc., and;
 - (4) Providing the program to interested parties upon request.
- ii. Report annually the progress toward implementing the trash reduction program. The report shall describe the status of trash elimination efforts including resources (e.g., personnel and financial) expended and the effectiveness of all program components including public education and outreach.

e. Animal Waste

The permittee shall continue its current animal waste control program and public outreach efforts to inform residents on compliance with the existing ordinance for the proper handling of animal waste within the City of Philadelphia.

The permittee will continue to make available educational material regarding control of animal waste and the regulation of animal waste disposal, including the enforcement of cleanup of pet waste,

leash laws, and inspection of livestock and rendering facilities with emphasis on manure and waste processing.

f. Yard Waste (Lawn and Garden Care)

The permittee shall provide education for homeowners regarding the proper use of pesticides and fertilizers on their lawns and gardens; promote the use of native vegetation; proper disposal of yard waste as leaves, garden residues, shrubbery, tree trimmings, and grass clippings, keeping it from entering the permittee's MS4; proper watering of lawn and plants; and proper landscaping activities to reduce erosion from soil disturbance.

The permittee shall promote, publicize, and facilitate the public proper disposal of household yard waste (leaves, garden residues, shrubbery, tree trimmings, grass clippings, etc.).

g. Public Reporting of Illicit Discharges, Improper Disposal

The permittee shall continue to promote, publicize, and facilitate the public reporting of illicit discharges, improper disposal, or associated water quality impacts through the use of public education programs and hotline numbers. The permittee shall provide in the annual status report to the DEP an outline for the process for receiving this information, complaints investigation and resolution, and a summary of the types of complaints received.

h. Used Oil and Toxic Material Disposal

The permittee shall facilitate the proper disposal of used oil and toxic materials through educational material and information, and by periodically sponsoring events for the collection and proper disposal of household wastes that may be hazardous.

i. Storm Water Inlet Labeling/Stenciling

The permittee shall continue to label/mark stormwater inlets with an identification that clearly states that it is for stormwater only and a warning that dumping down the inlet is strictly prohibited. The permittee shall quantify and provide to the DEP in the annual report all the labeled/stenciled stormwater inlets. The permittee shall work with watershed and civic partners to encourage stormwater inlet labeling projects. The permittee may also pursue other options to mark and message inlets in addition to stencils.

5. DETECTION, INVESTIGATION, AND ABATEMENT OF ILLICIT CONNECTIONS AND IMPROPER DISPOSAL

The permittee shall continue to implement a written program to detect and impose appropriate abatement requirements for illicit discharges and improper disposal to the municipal separate storm sewer system. The program shall include the following elements:

a. Mapping

- i. The permittee shall develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls. Outfalls and observation points shall be numbered on the map(s).

- (1) These map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Report following issuance of this permit.
- (2) The City's shall continue to update and maintain City maps as necessary during each year of coverage under this permit.

- ii. The permittee shall develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee

(including roads, inlets, piping, swales, catch basins, channels, and any other components of the storm sewer collection system), including privately-owned components of the collection system where conveyances or BMPs on private property receive stormwater flow from upstream publicly-owned components.

- (1) These map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Report following issuance of this permit.
- (2) The City's shall continue to update and maintain City maps as necessary during each year of coverage under this permit.

b. Prevention of Illicit Discharges

Sewer and Lateral Inspections

The permittee shall require strict compliance with the permittee's Plumbing, Sanitary & Storm Systems Codes, requiring permits for new connections to the permittee's infrastructure, and ensuring that sanitary waste shall not be drained into storm sewers. Where permits have been issued, City inspectors shall verify that proper connections to sanitary and storm sewers have been made.

The permittee shall create a program that will allow the City to conduct sewer and lateral inspections when properties are sold within the City.

c. Investigation of Illicit Discharge Sources

i. Outfall Prioritization

The permittee shall continue with the investigation of illicit discharge sources according to a strategic plan. Work areas for investigation shall be prioritized according to a system that considers the severity of the pollution (if any) in dry weather flows at MS4 outfalls, the health risk and nuisance to the community posed by that pollution, areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems. The permittee shall ensure the strategic plan includes the following:

- Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping.
- Procedures for screening outfalls in priority areas. The program shall include dry weather field screening of outfalls of non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources.
- Procedures of identifying the source of an illicit discharge when contaminated flow is detected at a MS4 outfall.
- Procedures for eliminating an illicit discharge.
- Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems.
- Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants) and for investigating illicit connections and discharges.
- Procedures for program documentation, evaluation and assessment. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.
- Procedures for addressing information or complaints received from the public.

The Annual Status Report shall contain a description of the strategic plan being used to guide the investigation, a list of the areas that have been designated as priority work areas, and a description of the progress of the illicit discharge investigations program for the year.

ii. Dry Weather Outfall Inspections and Sampling

The permittee shall conduct dry weather screenings of its MS4 outfalls and observation points to evaluate the presence of illicit discharges. If any illicit discharges are present, the permittee shall identify the source(s) and take appropriate actions to remove or correct any illicit discharges. The permittee shall also respond to reports received from the public or other agencies of suspected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action as necessary. The permittee shall immediately report to DEP illicit discharges that would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, in accordance with Part A III.D.4 of this permit. An observation point must be established by the permittee at a location upstream of any discharge of stormwater into storm sewers owned or operated by an adjoining municipality.

- All MS4 outfalls shall be screened during dry weather at least once within the 5-year period following issuance of this permit. For areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls shall be screened annually during each year of permit coverage.
- If a discharge is observed from any outfall during dry weather screenings, the discharge shall be inspected for color, odor, floating solids, scum, sheen, and substances that result in observed deposits in the surface waters. In addition, the discharge cannot contain substances that result in deposits in the receiving water or produce an observable change in the color, odor or turbidity of the receiving water. If the discharge exhibits any of the above characteristics, or contains any other pollutant or causes an observed change in the surface waters, the permittee shall sample the discharge(s) for field and/or laboratory analysis of one or more common IDD&E parameters in order to determine if the dry weather flow is illicit. Possible parameters include, but are not limited to: pH, Conductivity, Fecal Coliform bacteria, Heavy Metals, Chemical Oxygen Demand (COD), 5-day Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Oil and Grease, Total Residual Chlorine (TRC), and Ammonia-Nitrogen. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. The permittee shall retain sample results with the inspection report in accordance with Part A III.B of this permit.
- Each time an outfall is screened, the permittee shall record outfall observations, regardless of the presence of dry weather flow. All outfall inspections shall be documented on the MS4 Outfall Field Screening Report (380-FM-BCW0521), or equivalent. The report must be signed by the inspector and be maintained by the permittee in accordance with Part A III.B of this permit. If an outfall flow is determined by the permittee to be illicit, the actions taken to identify and eliminate the illicit flow shall also be documented.
- The permittee shall summarize the results of outfall inspections and actions taken to remove or correct illicit discharges in Annual MS4 Status Reports.
- If the permittee determines that an outfall cannot be accessed due to safety or other reasons, the permittee shall establish an "observation point" at an appropriate location prior to the outfall where outfall field screening shall be performed. If observation points are established by the permittee, such points shall be identified on the map required under 1. Mapping of this section.

The Annual Status Report shall also contain a list of all outfalls that have been determined to have flow during dry weather, based on the most recent inspection of each outfall. This list may be updated regularly as additional inspections are performed.

iii. Trackdown

The permittee shall continue to investigate dry weather flow and evidence of sanitary sewage contamination within impacted watersheds in an effort to identify Cross Connections, and other sewer lateral defects.

The permittee shall evaluate new sewer and lateral inspection techniques to identify other efficient methods for illicit discharge detection.

The permittee shall evaluate the current lateral inspection policy for new construction and other properties to identify possible improvements.

The permittee shall ensure that the Standard Operating Procedure/Methods (SOP) for illicit connections detection and identification is updated as necessary. The permittee shall ensure that all field crews who conduct dye testing have been trained and supplied with the updated SOP and field inspection forms. The dye testing SOP and inspection forms shall be made available to the Department upon request.

iv. Flow Diversions

The permittee shall maintain an inventory of sanitary flow diversion valves (SFDVs) installed in certain storm sewer systems to direct polluted dry weather flow into a nearby sanitary sewers and develop a plan for their elimination. The City shall develop an adaptive management plan that will be integrated into long-term capital improvements for the eventual removal of SFDVs. This plan will be submitted within three years after the issuance of this permit.

d. Abatements

- i. The permittee shall continue to operate cross-connection identification and repair program.
- ii. The permittee shall issue a Notice of Defect to a property owner within 30 days of the City making a determination about the nature of the condition, describing the nature of the defect and advising the property owner of the actions that will be necessary to abate the problem. Abatements will be conducted in accordance with the City's Plumbing and Construction of Sanitary Lines Codes.
- iii. The permittee shall ensure that the defect is corrected within 120 days of the date of the Notice of Defect; or, if the defect is not abated within that time frame due to lack of homeowner/occupant cooperation, the permittee then shall continue to institute administrative or legal proceedings against the property owner, seeking the immediate abatement of the defect. The permittee shall conduct inspection and/or sampling at the time of the abatement or shortly following the abatement to ensure that the property is properly connected.

e. Illicit Connection Pilot Program

The permittee shall initiate a research and demonstration pilot component to optimize the permittee's existing cross connection identification and repair program and to identify the most cost-effective solutions for eliminating dry weather sewage flows in the permittee's storm sewers. This pilot program will include the following elements: 1) testing new outfall sampling methodologies and techniques, 2) identifying and assessing alternative technologies to investigate and locate suspected illicit connections and 3) piloting temporary and permanent tools for abating illicit connections. The illicit connections pilot program shall be described in detail in the Annual Status Report within 24 months from permit issuance.

f. Illicit Connection Program Reporting

- i. The permittee shall compile and submit to the DEP an annual status report, which shall provide an update on its illicit connection program.
- ii. The following information shall be included in the annual status report:

Details of significant work performed during the previous year on all MS4 outfalls, including the following:

- Summary information about source investigation efforts through dye testing, inspections, field screening, etc. This should include a numerical summary of properties determined to be properly connected, and properties with defects, as determined during the reporting period. The outfall areas in which work was conducted during the reporting period should be identified.
- Summary information, including a numerical summary of source corrections (abatement) achieved through homeowner notification, enforcement, or City sponsored construction.
- Results of all outfall sampling and inspections performed during the reporting period.
- A summary of all sewer chokes, or other problems not related to defective laterals that resulted in the discharge of sanitary sewage directly or indirectly to a stream.

g. Sanitary Infiltration Controls

- i. The permittee will maintain procedures to investigate, remediate, and report sanitary infiltration by incident location, date identified, date corrected, and method of discharge.
- ii. The permittee will work to eliminate infiltration of sewage from municipal sanitary sewers to municipal separate storm sewers. The permittee will conduct maintenance activities to prevent and abate infiltration. Where chronic sanitary infiltration has been identified, the permittee will conduct detailed investigations and take appropriate corrective actions to abate the problem(s). Written records of investigations and corrective actions will be maintained and submitted to the DEP as part of the annual report.
- iii. If problems are observed or suspected with on-lot septic/disposal systems, either via complaints or other mechanisms, then the permittee will inspect and if needed, require remediation of such systems to prevent the discharge of pollutants to the permittee's MS4.
- iv. The permittee will report all activities in this category undertaken during the previous year in each year's Annual Status Report.

h. Education and Outreach to Public Employees

The permittee shall provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

- i. During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under Public Education and Outreach. The permittee shall establish and promote a stormwater pollution reporting mechanism (e.g., a compliant line with message recording) by the end of the first year of permit coverage for the public to use to notify the permittee of illicit discharges, illegal dumping or outfall pollution. The permittee shall respond to all complaints in a timely and appropriate manner. The permittee shall document all responses, including the action taken, the time required to take the action, and whether the complaint was resolved successfully.

- ii. Education outreach may include: distribution of brochures and guidance for target audiences including schools; programs to encourage and facilitate public reporting of illicit discharges; organizing volunteers to locate and visually inspect outfalls and to stencil storm drains; and implement and encourage recycling programs for common wastes such as motor oil, antifreeze and pesticides.

6. MONITOR AND CONTROL STORM WATER FROM CONSTRUCTION ACTIVITIES

a. Construction Site Runoff Control

The permittee shall continue to implement and enforce a program to reduce pollution from stormwater runoff to the MS4 system from construction activities that result in a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale that equals one acre or more. The permittee shall as part of this program:

- Review Erosion and Sediment (E&S) control plans to ensure that such plans adequately consider water quality impacts and meet regulatory requirements.
- Conduct inspections regarding installation and maintenance of E&S control measures during earth disturbance activities. Maintain records of site inspections, including dates and inspection results, in accordance with the record retention requirements in this permit.
- Conduct enforcement when installation and maintenance of E&S control measures during earth disturbance activities does not comply with permit and/or regulatory requirements.
- Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The Permittee shall provide education on these requirements to construction site operators.

While sediment is the most common pollutant of concern, construction activities can utilize materials and produce wastes that result in pollution, including but not limited to discarded building materials, washout from concrete trucks, chemicals, litter, and sanitary waste.

Implementation shall be done by written municipal ordinance/code provisions, by standard notes on site plans, by any other written format that accomplishes the objectives or by any combination of these measures. The goal shall be communicated to construction site operators during pre-construction meetings. This shall be implemented during each year of permit coverage. The permittee shall continue to implement existing requirements and update as necessary.

- Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public to the permittee regarding local construction activities. The permittee shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing.

Permittees shall establish and implement a tracking system to keep a record of any submitted public information as well as the permittee's response, actions, and results. This shall be implemented during each year of coverage under this permit.

- Require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

b. Philadelphia Storm Water Management Regulations

The permittee will continue to implement and enforce a program to reduce pollution from storm water runoff to the municipal separate storm sewer system from new development and redevelopment

projects through the implementation and enforcement of the Philadelphia Storm Water Management Regulations (PSWMR).

- i. The PSWMR shall include provisions that regulate water quality, channel protection, Low Impact Development (LID), Better Site Design (BSD), flood control and non-structural site design in order to properly manage new development and redevelopment projects in the City.
- ii. The permittee shall require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions. This requirement can be met by ensuring that the selected BMPs comply with the PSWMR.
- iii. The permittee shall maintain authority to conduct inspections of storm water management facilities built to comply with the PSWMR.
- iv. The permittee shall require of the developer, or its successor that those facilities built to comply with the PSWMR will continue to be properly operated and inspected.
- v. The permittee shall develop and implement a program for tracking the status and inspection of BMPs. BMP status shall be updated at least once in each permit term.
- vi. The permittee shall maintain enforcement authority for any violation of its PSWMR.
- vii. The permittee shall identify, characterize, and require maintenance of existing privately owned structural controls to the extent that existing development agreements have provided for maintenance and enforcement by the permittee where structures are in violation of the permittee's Storm Sewer Discharge Ordinance.
- viii. The permittee shall make its PSWMR available to the public on its website.

c. Applications/Permits

Since the City and the County of Philadelphia do not have a Conservation District, the Philadelphia Water Department will serve as the Conservation District for the City of Philadelphia for permit-related functions. When development projects are subject to the NPDES construction permitting requirements and Chapter 102 Regulations, the Philadelphia Water Department coordinates the review of Erosion and Sediment Pollution Control Plans and Post-Construction Storm Water Management Plans with the DEP. The City will continue to be notified through Act 14, Municipal Notification, by any applicants applying for a permit to discharge storm water from construction activities.

d. Inspections

Copies of DEP construction site inspections will be available through the Records Management Program at the Department's Norristown Office. On a case-by-case basis, the DEP may forward copies of inspections to the City using the following address:

Manager, Stormwater Plan Review Program
Philadelphia Water Department
ARAMARK Tower Building, 4th Floor
1101 Market Street
Philadelphia, PA 19107

e. Monitoring/Enforcement

Enforcement will be initiated by the DEP for non-compliance with permit conditions. The City will be copied on all correspondence regarding non-compliance cases.

f. NPDES Permit Requests

The permittee may request from the DEP a separate General or Individual NPDES permit to be issued for any facility that discharges storm water associated with industrial or construction activities into the City's MS4 system.

g. Guidance Manual

The permittee will make available a Philadelphia Storm Water Management Guidance Manual to developers and other parties as needed.

h. Floodplain Management

- i. The permittee shall continue to review any proposals for land development in accordance with City Code 14-704(4), to ensure structures built within the floodplain are located a minimum of one-foot above the 100-year flood elevation.
- ii. The permittee shall require the use of BMPs in new development and redevelopment consistent with city, state, and federal storm water management laws and requirements

7. POST CONSTRUCTION STORMWATER MANAGEMENT

- a. The permittee shall enact, implement and enforce an ordinance or SOP to require post-construction stormwater management for new development and redevelopment projects, including sanctions for non-compliance.

The permittee shall enact, implement, and enforce an ordinance to require the implantation of PCSM BMP's, including sanctions for non-compliance. The permittee shall submit a copy of an ordinance that's consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to Annual MS4 Status Report following issuance of this permit.

- b. Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should also be included to encourage retrofitting LID into existing development. Guidance on implementing LID practices may be found on DEP's MS4 website, www.dep.pa.gov/MS4. Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices. Submission of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) will satisfy this BMP.

- c. Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of larger common plan of development or sale.

An inventory of PCSM BMPs shall be developed by The permittee shall update and maintain its current inventory during the term of coverage under this permit. The permittee must track the following information in its PCSM BMP inventory:

- All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.
- The exact location of the PCSM BMP (e.g., latitude and longitude, with street address).
- Information (e.g., name, address, phone number(s)) for BMP owners and entities responsible for BMP O&M, if different from BMP owners.
- The type of BMP and the year it was installed.
- Maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources.
- The actual inspection/maintenance activities conducted for each BMP.
- An assessment by the permittee if proper O&M has occurred during the year and if not, what action the permittee has taken, or shall take, to address compliance with O&M requirements.

- d. The permittee shall require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions. This requirement can be met by ensuring that the selected BMPs comply with the Stormwater Management Ordinance that meets the requirements of this permit.

The permittee shall review all qualifying development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, to ensure that post-construction stormwater management plans and selected BMPs conform to the applicable requirements. A tracking system (e.g., database, spreadsheet or written list) shall be maintained to record qualifying projects and their associated BMPs. Permittee shall note if there are not qualifying projects in a calendar year.

- e. The permittee shall ensure that controls are installed that shall prevent or minimize water quality impacts. The permittee shall inspect all qualifying development or redevelopment projects during the construction phase to ensure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database spreadsheet, or written list) shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were or were not installed properly).
- f. The permittee shall develop and enforce local ordinances related to the control of stormwater runoff from new development and redevelopment projects. The permittee will be responsible for implementing and enforcing a program to address post construction stormwater runoff (quantity and quality) from new development and redevelopment projects. The program must include:
 - i. Procedures to require adequate long-term operation and maintenance of any BMPs employed;
 - ii. Requirements to inspect privately-owned stormwater management BMPs installed after 1991, for private and commercial developments, not to include resident-owned micro-scale BMPs such as rain barrels and small resident-owned rain gardens. Inspections shall occur on an annual basis, except in instances after BMP repair, in which case BMPs shall be inspected within one year after repair. BMPs shall be inspected based on any standards and specifications;
 - iii. Requirements to update BMP inventories annually; and
 - iv. Development and adoption of a local regulatory mechanism addressing post-construction stormwater quantity and quality and limiting the discharge of pollutants via stormwater runoff within three (3) years of the effective date of this permit.

The permittee shall require adequate long-term operation and annual maintenance of stormwater management facilities by the responsible party. The permittee shall retain copies of these maintenance instruments for its use.

Should the permittee choose a strategy other than a maintenance agreement to address long term maintenance of stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located, the permittee shall develop a written strategy no later than 12-months after the effective date of this permit. Such a strategy may include periodic inspections, homeowner outreach and education, maintenance agreements or other methods targeted at promoting the long term maintenance of such facilities.

The initial report shall include the City's strategy to address maintenance of stormwater management controls that are designed to treat stormwater runoff solely from the individual residential lot on which they are located.

Each annual report shall include a summary of actions taken by the City to implement statutory and regulatory requirements.

8. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

- a. The permittee shall identify and document, within two years of permit issuance, high risk runoff facilities that are owned or operated by the permittee and have the potential for generating

stormwater runoff to the permittee's MS4s. This list shall be included in the annual report submitted to the DEP.

- b. Within four years of permit issuance, the permittee must develop and implement an O&M program that includes a training component and has the ultimate goal of preventing and reducing pollutant runoff from operations, facilities and activities under the control of the permittee (collectively, "operations"). The program must include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.
- i. Identify and document all operations that are owned or operated by the permittee and have the potential for generating pollution in stormwater runoff to the regulated MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).
 - (1) Permittees shall create an inventory of all operations and land uses that may contribute to pollution in stormwater runoff within areas of operations that discharge to the regulated MS4 by the end of the first year of permit coverage, and review and update the inventory annually thereafter.
 - (2) Permittees must review and update the inventory each year of permit coverage, as necessary.
- ii. Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the regulated MS4, as identified above. This program shall address stormwater collection or conveyance systems within the regulated MS4. The written O&M program shall stress pollution prevention and good housekeeping measures, contain site-specific information, and include the following:
 - Management practices, policies, and procedures shall be developed and implemented to reduce or prevent the discharge of pollutants to the regulated MS4s. The permittee shall consider eliminating maintenance area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
 - Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach the regulated MS4s.
 - Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, salt / sand (anti-skid) storage locations and snow disposal areas. Controls for solid chemical products stored and utilized for the principal purpose of deicing roadways for public safety must be consistent with the BMPs for existing salt storage and distribution sites contained in the PAG-03 NPDES Permit for Stormwater Discharges Associated with Industrial Activity.
 - Procedures for the proper disposal of waste, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, street sweepings, and other debris.
 - (1) Permittee shall develop and implement a written O&M program by the end of the first year of permit coverage and review and update the program each year thereafter.

(2) Permittees must review and update the written O&M program each year of permit coverage, as necessary.

c. Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from operations to the regulated MS4. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. All relevant employees and contractors shall receive training (i.e., public works staff, building, zoning, and code enforcement staff, engineering staff, police and fire responders, etc.). Training topics shall include operation, inspection, maintenance and repair activities associated with any of the operations identified on b.i. above. Training must cover all relevant parts of the permittee's overall stormwater management program that could affect operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

i. The permittee shall develop and implement a training program that identifies the training topics that will be covered and what training methods and materials will be used by the end of the first year of permit coverage.

ii. The permittee must review and update the training program each year of permit coverage, as necessary.

iii. Employee training shall occur at least annually and shall be documented in writing and reported in Annual MS4 Status Reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

d. Storm Sewer Infrastructure Management

The permittee shall continue to maintain a program to maintain the permittee's stormwater infrastructure and to update the accuracy and inventory of the MS4. The permittee shall protect the integrity and performance of the existing stormwater drainage system through an infrastructure inspection, inventory, reinvestment, and rehabilitation program.

9. MONITOR AND CONTROL POLLUTANTS FROM INDUSTRIAL SOURCES

a. Applications/Permits

The permittee and the DEP will coordinate their efforts to control storm water from industrial activities discharged to the municipal separate storm sewer system. Industries will apply to the DEP for NPDES permits for the discharge of storm water runoff from industrial activities. The permit applications will be reviewed and processed by the DEP. The DEP will issue either a General or Individual permit for the discharge if all permitting requirements are met, and send a copy of the permittee's transmittal letter to the City, using the following address:

Manager, Regulatory Compliance Program
Philadelphia Water Department
Office of Watersheds
ARAMARK Tower Building, Fourth Floor
1101 Market Street
Philadelphia, PA 19107

b. Industrial and High Risk Runoff

The permittee shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from significant industrial users and any other high risk runoff facilities that the City determines are contributing a significant pollutant loading to the MS4.

i. The permittee shall maintain, and update as necessary, a list of all known Significant Industrial Users and high-risk runoff facilities to the MS4.

- ii. No later than 12-months after the effective date of this permit, the permittee shall develop and implement a prioritized schedule and procedures to inspect Significant Industrial Users (SIUs) and high-risk discharges with a point of connection to the MS4. Prioritization may be based on historical discharges, local water quality impairments, industrial category or other method selected by the permittee.
- iii. The permittee shall refer the following facilities to the Pennsylvania Department of Environmental, Southeast Regional Office, for DEP compliance review under the Pennsylvania Clean Streams Law:
 - (1) Facilities and operations having non-stormwater discharges that do not have coverage under an existing NPDES permit;
 - (2) Facilities and operations identified pursuant to 40 CFR 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing NPDES industrial stormwater permit

c. Inspections

- i. The permittee will conduct inspections on an annual basis of all significant industrial users, including those with Individual Stormwater NPDES permits, using the industrial waste inspection forms. Inspections will be carried out by permittee's personnel, and will include an on-site visual inspection, verification of a Preparedness, Prevention and Contingency Plan kept on site (if required), verification of permit requirements, proper operation and maintenance of BMPs, and a review of Discharge Monitoring Reports (DMRs) for compliance with the terms and conditions of the permit. The permittee shall submit a list of inspections performed throughout the year in each annual report.
- ii. The permittee shall conduct inspections of high risk runoff sites that have the potential to contribute pollutants to the permittee's MS4. Inspections shall be carried out by permittee's personnel and will include an on-site visual inspection. The permittee shall submit a list of inspection performed throughout the year in each annual report.
- iii. The permittee shall continue to identify priorities and procedures for inspections/monitoring storm water runoff from municipal waste treatment, storage, and processing facilities.

d. Monitoring/Enforcement

Enforcement of the industrial NPDES permittees will be initiated by the DEP. The permittee shall report observed violations of NPDES permit terms and conditions to the DEP for further investigation. The permittee shall initiate enforcement of violations of City storm water ordinances and regulations.

10. FISCAL ANALYSIS

The permittee, including all agencies and departments of the permittee shall provide adequate finances, staff, equipment and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit. For the core program the permittee shall provide a dedicated funding source. Each annual status report shall include a demonstration of adequate fiscal capacity to meet the requirements of this permit.

III. MS4 TMDL PLAN

- A. ATMDL Plan is a planning document prepared by the permittee which guides the selection and implementation of specific BMPs to reduce pollutant loading to surface waters and comply with the TMDL. A TMDL Plan shall be developed and submitted to DEP a MS4 TMDL Plan meeting all of the following criteria: 1) the permittee has at least one MS4 outfall that discharges to surface waters with an EPA-

approved TMDL; 2) the permittee has been identified in the TMDL as having a wasteload allocation (WLA) for one or more pollutants, where the WLA may be specific (individual) to the permittee or may be presented as an aggregate (bulk) requirement for all MS4s within a watershed; and 3) the WLA(s) are for sediment and/or nutrients (i.e., Total Nitrogen and/or Total Phosphorus).

- B. The permittee shall develop and implement a TMDL Plan in accordance with Appendix F of this permit for the surface water identified below.

Applicable TMDLs for the City of Philadelphia MS4:

1. SILTATION TOTAL MAXIMUM DAILY LOAD (TMDL) FOR WISSAHICKON CREEK

The permittee shall implement the *Wissahickon Siltation TMDL Implementation Plan for the City of Philadelphia* found as Appendix F of the FY2012 Annual Report date September 28, 2012, during the permit term through the construction of identified stream bank restoration projects, storm water wetland projects, implementation of the Philadelphia Storm Water Management Regulations, and regular maintenance including sediment removal from storm water inlets.

The permittee shall revisit the Wissahickon Siltation TMDL Implementation Plan for the City of Philadelphia and assess the effectiveness of the TMDL implementation plan in order to meet the requirements of the City "to establish baseline data on the City's contribution of sediment loading and flow variations" and "evaluate and implement BMPs". This assessment shall be submitted to the Department in Year 2 Annual Report. Monitoring results will be documented in a Wissahickon TMDL Implementation Monitoring Report that will be submitted to the Department as described in the Implementation Plan.

- i. The permittee shall include the most up to date TMDL Implementation Plan for the City of Philadelphia in each annual status report
- ii. The permittee shall evaluate the BMPs that have been constructed/implemented according to the TMDL Implementation Plan for the City of Philadelphia and document the associated sediment load reduction in the Wissahickon Creek TMDL Implementation Monitoring Report to be included in each Annual Status Report.

2. TOTAL MAXIMUM DAILY LOADS FOR POLYCHLORINATED BIPHENYLS (PCBs) FOR ZONES 2-5 OF THE TIDAL DELWARE RIVER & PCB TOTAL MAXIMUM DAILY LOAD FOR THE SCHUYLKILL RIVER: SCHUYLKILL, BERKS, MONTGOMERY, CHESTER AND PHILADELPHIA COUNTIES, PENNSYLVANIA

The City of Philadelphia will continue to implement its approved Pollutant Minimization Plan (PMP) to reduce Polychlorinated Biphenyls (PCBs) throughout the City of Philadelphia, in both its combined and municipal separate storm sewer systems (MS4). The City's PMP is operated to identify sources and minimize PCB contribution from areas served by both the combined sewer system and the MS4.

The City shall implement its PMP throughout the City of Philadelphia by engaging in the following activities:

- a. The City shall continue to sample and analyze the City's three (3) Water Pollution Control Plants' (WPCPs') effluent for PCBs in accordance with the terms and conditions of their respective NPDES permits.
- b. Within 24 months of permit issuance, the City shall create a database and GIS map of all possible PCB sources throughout the City. These sources would include permitted wastewater discharges (i.e. Significant Industrial Users), permitted groundwater discharges (e.g. construction sites), and sites known to contain liquid cooled electrical equipment which may contain PCBs.
- c. The City will then utilize this GIS map to focus on particular drainage areas where high PCB concentrations may have been found (e.g. Pennypack Creek). The map will identify the possible

PCB sources in the drainage area. Those sources would then be investigated via site inspections & sampling if warranted in order to ascertain their PCB contribution, if any, to the drainage area of focus.

- d. The City will collect and analyze for PCBs 12 instream samples in the Pennypack Creek according to the following schedule:
 - i. The City shall develop and submit a Pennypack Creek PCB Characterization plan to the DEP and Delaware River Basin Commission (DRBC) for approval within the first year after issuance of this permit.
 - ii. For the City to demonstrate compliance with the Pennypack Creek PCB Characterization plan, the City shall collect and analyze samples for PCBs from one wet weather and one dry weather event at six (6) locations in the Pennypack watershed for a total of twelve (12) instream samples. The City shall determine the six (6) sample locations, which shall be bounded by the downstream and upstream USGS gages located at Rhawn Street and Pine Road.
 - iii. After approval of the plan, these samples shall be collected in the second year after issuance of this permit. The City shall, if necessary, collect any samples within the third year after issuance of this permit if prior sampling event conditions could not be met in year 2
 - iv. To determine the presence of PCBs, the City will use either EPA Method 1668A or Method 680 (similar to EPA Method 1668A) with detection limits to pg/g vs ng/g, respectively, which provide congener specific results shall be used. Results should be submitted to the DEP and DRBC in electronic format, as provided in DRBC's *Monitoring for PCBs-Summary of Sampling and Analytical Requirements*. (<http://www.state.nj.us/drbc/quality/toxics/pcbs/monitoring.html>). The City shall analyze and submit the results by the fifth year after issuance of permit.
 - v. Based on the results of the Pennypack Creek PCB Characterization plan, the City shall work in cooperation with the DEP and Delaware River Basin Commission (DRBC) to discuss future characterization efforts.
 - vi. The City shall demonstrate compliance by reporting to the DEP annually, the progress and results of the Pennypack Creek PCB Characterization plan as part of the City's Annual Stormwater Report.
 - e. The City shall continue to inspect 50 sites within in the master list referenced above each year. The City shall report results of the inspections in the annual report.
 - f. The City shall continue to evaluate new and other possible sources of PCB, including township contributions, scrap yard task force locations, and other sites.
 - g. The City shall analyze historic sludge data to determine trends in PCB concentrations to approximate the measurement of PCBs loadings removed by the City's three wastewater treatment plants.
- C. The permittee shall submit the TMDL Plan to DEP no later than one year following the effective date of this permit. The permittee shall implement the public participation requirements specified in Appendix F, paragraphs C.1 through C.5, as part of the TMDL Plan development and submission process.

IV. POLLUTANT CONTROL MEASURES AND POLLUTANT REDUCTION PLANS

The permittee is required to implement Pollutant Control Measures (PCMs) and develop and implement Pollutant Reduction Plans (PRPs), as specified in paragraph C below and in DEP's MS4 Requirements Table, available at www.dep.pa.gov/MS4.

Impaired Downstream Water or Applicable TMDL Name	Requirement(s)	Other Cause(s) of Impairment
East Branch Indian Creek	Appendix C – PCB (5) Appendix E – Siltation (5)	Cause Unknown (5) Other Habitat Alterations Water/Flow Variability (4c)
Poquessing Creek	Appendix C – PCB (5) Appendix E – Excessive Algal Growth (5)	Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)
Pennypack Creek	Appendix B – Pathogens (4a) Appendix C – Priority Organics (4a) Appendix E – Organic Enrichment/Low D.O. (4a) Appendix E – Siltation (5)	Cause Unknown (5)
Tacony Creek	Appendix E – Organic Enrichment/Low D.O. (5)	Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)
Cobbs Creek	Appendix B – Pathogens (5) Appendix C – PCB (5) Appendix E – Siltation (5)	Cause Unknown (5) Other Habitat Alterations Water/Flow Variability (4c)
Delaware River	Appendix C – PCB (4a)	
Byberry Creek	Appendix E – Excessive Algal Growth (5)	Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)
Wissahickon Creek	Appendix E – Nutrients (4a) Appendix B – Pathogens (5)	Water/Flow Variability (4c)
Mill Run		Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)
Black Lake Run	Appendix E – Siltation (5)	Cause Unknown (5)
Unnamed Tributaries to Wissahickon Creek	Appendix E – Organic Enrichment/Low D.O. (5)	Other Habitat Alterations (4c)
Unnamed Tributaries to Schuylkill River	Appendix E – Siltation (5)	Water/Flow Variability (4c)
Schuylkill River	Appendix C – PCB (4a)	
Walton Run	Appendix E – Siltation (5)	Cause Unknown (5)
Wooden Bridge Run	Appendix E – Siltation (5)	Cause Unknown (5)
Indian Creek	Appendix C – PCB (5) Appendix E – Siltation (5)	Cause Unknown (5) Other Habitat Alterations Water/Flow Variability (4c)
Frankford Creek	Appendix C – PCB (4a) Appendix E – Organic Enrichment/Low D.O. (5)	Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)
Darby Creek	Appendix C – PCB (5)	
Cresheim Creek		Water/Flow Variability (4c)
West Branch Indian Creek	Appendix C – PCB (5) Appendix E – Siltation (5)	Cause Unknown (5) Other Habitat Alterations Water/Flow Variability (4c)
Sandy Run		Cause Unknown (5) Flow Alterations Other Habitat Alterations Water/Flow Variability (4c)

- A. PCMs are activities undertaken by the MS4 permittee to identify and control pollutant loading to impaired waters from MS4s, regardless of whether a TMDL has been approved. PCMs are BMPs and other strategies that are in addition to the permittee's SWMP identified in Part C of this Permit. PCMs must be implemented where the permittee 1) has at least one stormwater outfall that discharges to impaired waters, and 2) the "cause of impairment" is one or more of the causes listed in paragraphs A.1 through A.2, below.
1. Where surface waters are impaired for Pathogens (e.g., Fecal Coliform), the permittee shall implement the PCMs identified in **Appendix B** of this permit, in accordance with the schedule therein.
 2. Where surface waters are impaired for Priority Organic Compounds (e.g., Polychlorinated Biphenyls (PCBs), pesticides, or other organic compounds), the permittee shall implement the PCMs identified in **Appendix C** of this permit, in accordance with the schedule therein.
- B. A PRP is a planning document prepared by the permittee which guides the selection and implementation of specific BMPs to reduce pollutant loading to surface waters. The objective of a PRP is to improve the condition of surface waters such that the waters eventually attain water quality standards and its designated and existing uses in accordance with 25 Pa. Code Chapter 93. A PRP shall be developed and submitted to DEP for the following criteria:
1. The permittee has at least one stormwater outfall that discharges to waters impaired for nutrients (i.e., nitrogen and/or phosphorus) and/or sediment (i.e., siltation), and a TMDL has not been approved for such waters, or a TMDL has been approved but no wasteload allocation (WLA) has been assigned by the TMDL for the permittee's discharge(s). Where these conditions apply, upon DEP's issuance of this permit, permittees shall implement the PRP in accordance with **Appendix E** of this permit.

Permittees with coverage under this permit that discharge to impaired waters are required to implement Pollutant Control Measures (PCMs) and Pollutant Reduction Plans (PRPs), as applicable. PRP(s) shall be submitted to DEP no later than one year following the effective date of this permit. The permittee shall implement the public participation requirements specified in Appendix E, paragraphs C.1 through C.5, as part of the PRP development and submission process.

V. OTHER REQUIREMENTS

- A. Screenings and other solids collected by the permittee shall be handled, recycled and/or disposed of in compliance with the Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), 25 Pa. Code Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to requirements for landfilling, impoundments, land application, composting, processing, and storage of residual waste), federal regulation 40 CFR Part 257, The Clean Streams Law, and the Federal Clean Water Act and its amendments.
- B. DEP may require monitoring of stormwater discharge(s) as may be reasonably necessary in order to characterize the nature, volume or other attributes of that discharge or its sources.
- C. The permittee shall ensure that its SWMP, including its Stormwater Management Ordinance(s) or SOPs, is designed to prevent increased loadings of pollutants and to not cause or contribute to a violation of water quality standards by any discharge from its regulated small MS4.
- D. The permittee shall develop and maintain adequate legal authorities, where applicable, and shall maintain adequate funding and staffing to implement this Permit, including the SWMP contained in Part C I of this Permit.
- E. In accordance with 40 CFR § 122.35, the permittee may rely on another entity to satisfy NPDES permit obligations to implement a minimum control measure if: (1) the other entity, in fact, implements the control measure; (2) the particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and (3) the other entity agrees to implement the control measure on the permittee's behalf. The permittee must specify in Annual MS4 Status Reports that it is relying on another entity to satisfy some of its NPDES permit obligations. The permittee remains

responsible for compliance with permit obligations if the other entity fails to implement the control measure (or component thereof).

F. BEST MANAGEMENT PRACTICES (BMPs)

1. Public Source Controls

The permittee shall maintain the Mingo Creek Surge Basin and report any other new control structures throughout the City to the DEP.

2. The permittee shall operate and maintain public roadways using the following BMPs to reduce the impact on receiving waters from the municipal separate storm sewer system discharges:

a. Snow Management Plan and De-Icing Practices

The permittee shall provide the Department with a copy of the snow removal and disposal plan in the permittee's Annual Status Report, unless the plan has not changed since the last submission. The plan must indicate where the permittee disposes of snow removed from City properties and streets and must address de-icing practices.

The permittee will work to reduce the amount of salt used for deicing practices, consistent with its comprehensive snow emergency management procedures. The permittee will maintain covers over salt piles to prevent contact with precipitation.

b. Street Cleaning Practices

The permittee shall continue to implement a street sweeping program which shall be described in the SWMP and in each annual report, including the effort associated with these activities

c. Inlet Maintenance

The permittee shall continue an Inlet Maintenance Program which shall be described in the SWMP and in each annual report. The Inlet Maintenance Program shall do the following:

- Quantify the amount of stormwater inlets in the City,
- Provide an Inlet Maintenance Schedule which shall include;
 - Inlet Inspection Goal per permit year,
 - Number of Inlets Inspected each year,
 - Inlets in need of Maintenance
 - Inlets Repaired and additional maintenance to any inlets during the year.
- Evaluate the Inlet Maintenance Program

d. Litter Control Program

The permittee shall continue its existing litter control program to minimize/abate litter, trash and soft, non-rigid membranous material such as plastic shopping bags and Mylar snack bags that make their way into Water of the Commonwealth through the following multi-pronged approach:

- i. The permittee shall continue its litter awareness program by following the program described in the Litter Awareness section.
- ii. The permittee shall remove litter collected in trapped inlets as described in the Inlet Maintenance section.
- iii. The permittee shall conduct community stream clean ups to remove litter that has entered waters of the Commonwealth.
- iv. The permittee shall fund and operate a stream cleanup crew as described in Waterway Debris Removal section.

- v. The permittee shall conduct street cleaning to prevent litter accumulation as described in the Street Cleaning Practices section.
- vi. The permittee shall continue to conduct a comprehensive floatable control program.

In order to enhance and inform the existing litter control program, the permittee shall develop a Litter Control Pilot Program as part of the SWMP to better understand the most effective ways to minimize/abate litter and trash that make their way into Waters of the Commonwealth through the permittee's MS4. The goals of the pilot program are to identify the types of trash that accumulate in inlets and end up in waterways, the identification of problem areas and changes that happen from season to season. The program will identify implementable practices for addressing trash accumulation in the outfall area.

The permittee shall develop a litter monitoring program that will address the following:

- Representative sampling sites (ditches, streams, channels, etc.).
- Visually count before collection of trash and refuse (plastic trash bags, bottles, shopping carts, etc.) located in the sampling site, visible on the channel bottom, along banks (up to high water mark), or suspended vegetation located in the sample site.
- Report summary of results and trends in the annual report:
 - o Location of the sample site
 - o Total site 'counts'
 - o Months since the last trash and floatables pick-up from the samples section

3. Spill Prevention and Response

- a. The permittee shall implement a Spill Prevention and Response plan if no plan already in place. The Spill Prevention and Response plan shall include a combination of spill response actions by the permittee (and/or by another public or private entity), and legal requirements for private entities within the permittee's jurisdiction.
- b. The permittee will contain and respond to spills that may discharge to the MS4 in accordance with an approved spill response plan. If the spill response plan is updated, it will be provided in the permittee's Annual Status Report.
- c. A summary of pollutant migration/infiltration to the MS4 system from spills and steps to abate the cause shall be included in the Annual Status Report.

4. Waterway Debris Removal

The permittee shall continue to fund and operate a multi-crew force dedicated to a variety of tasks related to stream cleanup, debris removal, and outfall and stream channel restoration. The activities of the permittee shall be summarized in each year's Annual Status Report.

5. Pesticides, Herbicides, and Fertilizer Controls

The permittee shall provide controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right of way, parks, and other municipal property. The permittee shall maintain a program to reduce the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers. The use, storage, disposal, and transportation, of pesticides, herbicides, fertilizers and their containers must be in compliance with the regulations of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)(40CFR Parts 150-189).

6. Assessment of Controls

During the term of this permit, the permittee shall continue to assess the impact of BMPs on a watershed basis by estimating annual and seasonal loadings of chemical constituent in storm water for all separate-sewered areas of the permittee. The permittee shall continue to maintain and use the loading assessment method utilized for compliance with similar requirements of previous permits,

based on the Constant Concentration modeling methodology (Donigian A. and W. Huber, 1991, Modeling of Nonpoint Source Water Quality in Urban and Non-Urban Areas, Office of Research and Development, USEPA). Estimates of constituent concentrations shall be based on the nationally-derived storm water event mean concentrations (EMCs) developed during the Nationwide Urban Runoff Program database as supplemented by subsequent national-scale urban runoff data collection efforts. Parameters shall include: Total Suspended Solids (TSS), 5-Day Biochemical Oxygen Demand (BOD₅), Chemical Oxygen Demand (COD), Total Nitrogen (TN), Total Phosphorus (TP), Fecal Coliform (FC), Copper (CU), Lead (PB), Zinc (ZN), Cadmium (CD), and Dissolved Iron (DI). Storm water runoff volumes shall be estimated by the permittee's application of the modified rational approach for annual and seasonal runoff volumes. These loading estimates shall be included in the permittee's Annual Status Report along with the discussion of how these loads may be reduced by the implementation of the activities required in this permit, and how the magnitude of these load reductions may be estimated.

APPENDIX B

POLLUTANT CONTROL MEASURES FOR WATERS IMPAIRED BY PATHOGENS

The permittee shall implement the following Pollutant Control Measures (PCMs) within the storm sewershed of any outfall that discharges to waters impaired due to Pathogens (e.g., Fecal Coliform), regardless of whether there is an approved TMDL:

A. Map and Inventory.

1. The permittee shall develop map(s) of the storm sewershed(s) associated with all outfalls that discharge to surface waters subject to Appendix B. The purpose is to identify the area the permittee is responsible for within its legal boundaries in developing a source inventory. The map(s) shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2019.
2. The permittee shall develop an inventory of all suspected and known sources of bacteria in stormwater within the storm sewershed, at a minimum, that discharge to impaired waters. The inventory must identify whether the source is suspected or known, the basis for this determination, the responsible party (if known), and any corrective action the permittee has taken or plans to take for any of these sources. The inventory shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2020.

B. The permittee shall complete an investigation of each suspected source. This investigation must include stormwater sampling if the investigation is required as part of implementing the IDD&E program under MCM #3 of the permit, and otherwise is voluntary. The results of the investigation shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2021 .

C. The permittee shall enforce ordinances that prohibit illicit and illegal connections and discharges of sewage to the MS4. Anytime an illicit and illegal connection or discharge of sewage into the MS4 is discovered by the permittee, the permittee shall report the finding in the subsequent Annual MS4 Status Report along with a description of corrective action by the permittee.

D. If not already established in its Stormwater Management Ordinance (municipal permittees) or SOP (non-municipal permittees), the permittee shall enact an ordinance or develop and adopt an SOP that requires proper management of animal wastes on property owned by the permittee. If an ordinance or SOP already exists that controls animal wastes, it must be attached to the first Annual MS4 Status Report. If a new ordinance or SOP is enacted or adopted, the new ordinance or SOP must be attached to the first Annual MS4 Status Report.

E. The permittee shall document the progress of its investigations, source control efforts and BMPs to control sources of pathogens in its Annual MS4 Status Reports.

APPENDIX C

POLLUTANT CONTROL MEASURES FOR WATERS IMPAIRED BY PRIORITY ORGANIC COMPOUNDS

The permittee shall implement the following Pollutant Control Measures (PCMs) within the storm sewershed of any outfall that discharges to waters impaired due to Priority Organic Compounds, including but not limited to Polychlorinated Biphenyls (PCBs), Pesticides, and any other organic compound listed at 40 CFR Part 423, Appendix A, regardless of whether there is an approved TMDL:

A. Map and Inventory.

1. The permittee shall develop map(s) of the storm sewershed(s) associated with all outfalls that discharge to surface waters subject to Appendix C. The purpose is to identify the area the permittee is responsible for within its legal boundaries in developing a source inventory. The map(s) shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2019 .
2. The permittee shall develop an inventory of all suspected and known anthropogenic (caused or produced by humans) sources of Priority Organic Compounds in stormwater within the drainage area of outfalls discharging to impaired waters. The inventory must identify whether the source is suspected or known, the basis for this determination, the responsible party (if known), and any corrective action the permittee has taken or plans to take for any of these sources. The inventory shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2020.

B. The permittee shall complete an investigation of each suspected source. This investigation must include stormwater sampling if the investigation is required as part of implementing the IDD&E program under MCM #3 of the Permit, and otherwise is voluntary. The results of the investigation shall be submitted to DEP with an Annual MS4 Status Report that is due no later than September 30, 2021.

C. Where it is determined that sources of Priority Organic Compounds are being discharged in stormwater from industrial sites into the permittee's MS4, the permittee shall notify DEP in writing within 90 days of the permittee's findings. DEP may require the owner or operator of the industrial site to submit an application for NPDES permit coverage and/or implement BMPs to reduce pollutant loadings. This written notification is required only once per industrial site.

D. The permittee shall document the progress of its investigations, source control efforts and BMPs to control sources of Priority Organic Compounds in its Annual MS4 Status Reports.

APPENDIX E

POLLUTANT REDUCTION PLAN REQUIREMENTS FOR DISCHARGES TO WATERS IMPAIRED FOR NUTRIENTS AND/OR SEDIMENT

MS4 permittees with at least one stormwater discharge to surface waters considered impaired for nutrients (nitrogen and phosphorus) and/or sediment, in which a TMDL has not been developed or the TMDL has not identified a wasteload allocation (WLA) for the permittee, must develop and submit a Pollutant Reduction Plan (PRP) with the application to reduce the pollutant loads to those waters. In the event the permittee also has at least one stormwater discharge to surface waters within the Chesapeake Bay watershed, the PRP may be combined with the CBPRP described in Appendix D.

The PRP is approved upon DEP's issuance of this permit, subject to any conditions identified elsewhere in this permit or in permit correspondence. The permittee shall implement its approved PRP and comply with the following:

- A. The permittee shall achieve a sediment load reduction (lbs/year) of 10%, compared to existing loading, by (**Enter Permit Expiration Date**). Pollutant reduction efficiencies for selected BMPs shall be in accordance with the BMP Effectiveness Values document published by DEP (3800-PM-BCW0100m) or Chesapeake Bay Program Office expert panel reports. The permittee shall submit a report demonstrating implementation of the PRP as an attachment to the first Annual MS4 Status Report that is due following the expiration date of this permit.
- B. The BMPs proposed in the PRP for the term of permit coverage shall be implemented in accordance with the schedule in the PRP. In the event the permittee decides to modify the location, type or number of proposed BMPs, modify the storm sewershed map, or modify the schedule by more than 180 days, the permittee shall submit an update to its CBPRP to DEP prior to implementing the changes. The modified PRP may be implemented upon submission to DEP unless DEP issues an objection in writing within 60 days.
- C. Where submission of a modified PRP to DEP is required, the permittee shall solicit public involvement and participation, as follows:
 1. The permittee shall make a complete copy of the PRP available for public review.
 2. The permittee shall publish, in a newspaper of general circulation in the area, a public notice containing a statement describing the plan, where it may be reviewed by the public, and the length of time the permittee will provide for the receipt of comments. The public notice must be published at least 45 days prior to the deadline for submission of the PRP to DEP.
 3. The permittee shall accept written comments for a minimum of 30 days from the date of public notice.
 4. The permittee shall accept comments from any interested member of the public at a public meeting or hearing, which may include a regularly scheduled meeting of the governing body of the municipality or municipal authority that is the permittee.
 5. The permittee shall consider and make a record of the consideration of each timely comment received from the public during the public comment period concerning the plan, identifying any changes made to the plan in response to the comment.

Modified PRPs submitted to DEP must include a copy of the newspaper notice, a copy of all written comments received from the public and a copy of the permittee's record of consideration of all timely comments received in the public comment period.

- D. Progress with achieving the required pollutant load reductions shall be reported in each Annual MS4 Status Report.

APPENDIX F

TMDL PLAN REQUIREMENTS FOR DISCHARGES TO WATERS IMPAIRED FOR NUTRIENTS AND/OR SEDIMENT

MS4 permittees with at least one stormwater discharge to surface waters with an EPA-approved TMDL where the cause of impairment is nutrients and/or sediment, and where the permittee has been assigned a wasteload allocation (WLA) (either individual/specific or aggregate/bulk) in the TMDL, must develop and submit a TMDL Plan with the application to reduce the pollutant loads to those waters.

The TMDL Plan is approved upon DEP's issuance of this permit, subject to any conditions identified elsewhere in this permit or in permit correspondence. The permittee shall implement its approved TMDL Plan and comply with the following:

A. The permittee shall achieve pollutant load reduction(s) (lbs/year) to meet at least one of the following objectives, by (**Enter Permit Expiration Date**):

1. WLA(s) for pollutant(s) of concern established in the TMDL for the permittee or, in the case of aggregate/bulk WLAs, the portion of the WLA that applies to the permittee as calculated by the permittee in its TMDL Plan and approved by DEP.
2. A reduction of 10% or 5% of the permittee's existing sediment or TP load, respectively, as calculated by the permittee in its TMDL Plan and approved by DEP.

Pollutant reduction efficiencies for selected BMPs shall be in accordance with the BMP Effectiveness Values document published by DEP (3800-PM-BCW0100m) or Chesapeake Bay Program Office expert panel reports. The permittee shall submit a report demonstrating that one or both of the objectives have been achieved as an attachment to the first Annual MS4 Status Report that is due following the expiration date of this permit.

B. The BMPs proposed in the TMDL Plan for the term of permit coverage shall be implemented in accordance with the schedule in the TMDL Plan. In the event the permittee decides to modify the location, type or number of proposed BMPs, modify the storm sewershed map, or modify the schedule by more than 180 days, the permittee shall submit an update to its TMDL Plan to DEP prior to implementing the changes. The modified TMDL Plan may be implemented upon submission to DEP unless DEP issues an objection in writing within 60 days.

C. Where submission of a modified TMDL Plan to DEP is required, the permittee shall solicit public involvement and participation, as follows:

1. The permittee shall make a complete copy of the PRP available for public review.
2. The permittee shall publish, in a newspaper of general circulation in the area, a public notice containing a statement describing the plan, where it may be reviewed by the public, and the length of time the permittee will provide for the receipt of comments. The public notice must be published at least 45 days prior to the deadline for submission of the PRP to DEP.
3. The permittee shall accept written comments for a minimum of 30 days from the date of public notice.
4. The permittee shall accept comments from any interested member of the public at a public meeting or hearing, which may include a regularly scheduled meeting of the governing body of the municipality or municipal authority that is the permittee.
5. The permittee shall consider and make a record of the consideration of each timely comment received from the public during the public comment period concerning the plan, identifying any changes made to the plan in response to the comment.

Modified TMDL Plans submitted to DEP must include a copy of the newspaper notice, a copy of all written comments received from the public and a copy of the permittee's record of consideration of all timely comments received in the public comment period.

D. Progress with achieving the required pollutant load reductions shall be reported in each Annual MS4 Status Report.

DRAFT